

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A modulation device comprising:

a modulation unit ~~that modulates~~ configured to modulate data in a hierarchical manner using multiple types of modulation techniques and to produce hierarchically modulated data that includes signal states for the multiple types of modulation techniques; and

a transmission unit ~~that transmits~~ configured to transmit the hierarchically modulated data.

Claim 2 (Currently Amended): The modulation device according to claim 1, further comprising:

a sampling pattern generating unit ~~that generates~~ configured to generate a sampling pattern for each of the multiple types of modulation techniques, the sampling pattern is a constellation pattern in a phase plane defining a sampling space for quantizing said data in accordance with each of said modulation techniques, wherein the modulation unit modulates said data in the hierarchical manner using a digital signal sampled based on the sampling pattern.

Claim 3 (Original): The modulation device according to claim 2, wherein the sampling pattern defines the sampling space of a carrier used in one of multi-phase phase shift keying and multi-value quadrature amplitude modulation.

Claim 4 (Currently Amended): The modulation device according to claim 2, wherein the transmission unit ~~transmits~~ is configured to transmit the sampling pattern, together with the hierarchically modulated data.

Claims 5-10 (Canceled).

Claim 11 (Currently Amended): A modulation method comprising ~~the steps of~~:
modulating data in a hierarchical manner using multiple types of modulation techniques to produce hierarchical modulation data;
producing hierarchically modulated data that includes signal states for the multiple types of modulation techniques; and
transmitting the hierarchical modulation data to a demodulator of a counterpart communication device.

Claim 12 (Currently Amended): The modulation method according to claim 11, further comprising ~~the step of~~:
generating a sampling pattern for each of the modulation techniques, the sampling pattern is a constellation pattern in a phase plane defining a sampling space for quantizing said data in accordance with each of said modulation techniques, wherein said data ~~[[are]]~~ is modulated in a hierarchical manner using a digital signal sampled based on the sampling pattern.

Claim 13 (Original): The modulation method according to claim 12, wherein the sampling pattern defines the sampling space of a carrier used in one of multi-phase phase shift keying and multi-value quadrature amplitude modulation.

Claim 14 (Currently Amended): The modulation method according to claim 12, further comprising ~~the step of~~:

transmitting the sampling pattern together with the hierarchically modulated data.

Claim 15-20 (Canceled).